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Building & Highway Material Testing Laboratory
An ISO 9001:2008 Certified Company
NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

JAS-ANZ
BSCIC
ISO 9001 REGISTERED

Job No.: CTCE/BBMP/W.No.18/TTVK/WMM/AIV/2014-15

12.12.2014

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Hebbala Sub Division, BBMP, Bangalore.
Agency	**Mr. T.T. Vasanth Kumar,** Contractor, Bangalore.
Name of the Work	Providing Pot Hole filling to Asphalt surface in Ward No.18, BBMP, Bangalore.
Reference	AEE(Hebbala)/PR/216/2014-15 Dated: 10.12.2014
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	12.12.2014

Sl No.	Details	Trial No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	379	380	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	79	80	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	300	300	
4	Aggregate Impact value = percent fines	20.84	21.05	
	100* (W_2/W_1)%			20.95

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

Note:

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Job No.: CTCE/BBMP/W.No.18/TTVK/WMM/S-T/2014-15 12.12.2014

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** Hebbala Sub Division, BBMP, Bangalore.
Agency	**Mr. T.T. Vasanth Kumar,** Contractor, Bangalore.
Name of Work	Providing Pot Hole filling to Asphalt surface in Ward No.18, BBMP, Bangalore.
Reference	AEE(Hebbala)/PR/216/2014-15 Dated: 10.12.2014
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	12.12.2014

Result : Flakiness Index = 11.08%

Elongation Index = 13.20%

Result : Combined Flakiness & Elongation index 24.28%

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Job No.: CTCE/BBMP/W.No.18/TTVK/SDBC/AIV/2014-15 15.12.2014

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Hebbala Sub Division, BBMP, Bangalore.
Agency	**Mr. T.T. Vasanth Kumar,** Contractor, Bangalore.
Name of the Work	Providing Pot Hole filling to Asphalt surface in Ward No.18, BBMP, Bangalore.
Reference	AEE(Hebbala)/PR/216/2014-15 Dated: 10.12.2014
Source / Location	Hot Mix Plant, Bangalore
Type of Mix	Semi Dense Bituminous Concrete
Date of Testing	15.12.2014

Sl No.	Details	Trial No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	389	390	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	89	90	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	300	300	
4	Aggregate Impact value = percent fines 100* (W_2/W_1)%	22.88	23.08	22.98

Comments:

→ Maximum allowable Aggregate Impact value for Semi Dense Bituminous Concrete is 27%

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Job No.: CTCE/BBMP/W.No.20/TTVK/SDBC/Shape_T/2014-15 : 15.12.2014

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	: **Asst. Executive Engineer,** Hebbala Sub Division, BBMP, Bangalore.
Agency	: **Mr. T.T. Vasanth Kumar,** Contractor, Bangalore.
Name of Work	: Providing Pot Hole filling to Asphalt surface in Ward No.18, BBMP, Bangalore.
Reference	: AEE(Hebbala)/PR/216/2014-15 Dated: 10.12.2014
Technical Reference	: IS 2386(Part 1) 1963 (RA 2007)
Type of Mix	: Semi Dense Bituminous Concrete
Date of Testing	: 15.12.2014

Result : Flakiness Index = **11.29%**

Elongation Index = **13.64%**

Result : Combined Flakiness & Elongation index 24.93%

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Job No.: CTCE/BBMP/W.No.18/TTVK/SDBC/Stripping/2014-15

16.12.2014

Stripping Value of Road Aggregates (Static Immersion Test)

IS: 6241

Client	**Asst. Executive Engineer,** Hebbala Sub Division, BBMP, Bangalore.
Agency	**Mr. T.T. Vasanth Kumar,** Contractor, Bangalore.
Name of the work	Providing Pot Hole filling to Asphalt surface in Ward No.18, BBMP, Bangalore.
Reference	AEE(Hebbala)/PR/216/2014-15 Dated: 10.12.2014
Type of Mix	Semi Dense Bituminous Concrete
Date of Testing	16.12.2014

Type of binder : 60/70
Percentage of binder used : 5.0% by wt.
Total weight of aggregate : 200 g
Total weight of binder : 10.0 g
Temperature of water-bath : 40° C

Observation Number	Stripping, Percentage	Average, Percentage	Average Retained Coating, %
1	3.4	3.50	96.50
2	3.5		
3	3.6		

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Comments:

→ Minimum allowable Aggregate retained coating for Semi Dense Bituminous Concrete is 95%

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Job No.: CTCE/BBMP/W.No.18/TTVK/SDBC/Sp_Wa/2014-15

16.12.2014

Specific Gravity And Water Absorption Test

IS: 2386 Part III

Client	**Asst. Executive Engineer,** Hebbala Sub Division, BBMP, Bangalore.
Agency	**Mr. T.T. Vasanth Kumar,** Contractor, Bangalore.
Name of the Work	Providing Pot Hole filling to Asphalt surface in Ward No.18, BBMP, Bangalore.
Reference	AEE(Hebbala)/PR/216/2014-15 Dated: 10.12.2014
Type of Mix	Semi Dense Bituminous Concrete
Source / Location	Hotmix Plant, Bangalore
Date of Testing	16.12.2014

Sl. No.	Details	Notation	Test Number			Mean Value
			Test 1	Test 2	Test 3	
1	Weight of aggregate suspended in water with the basket	W_1 g	2020	2019	2017	
2	Weight of basket suspended in water	W_2 g	750	750	750	
3	Weight of saturated aggregate in water	$(W_1 - W_2) = W_s$ g	1270	1269	1267	
4	Weight of saturated surface dry aggregate in air	W_3 g	2025	2026	2027	
5	Weight of water equal to the volume of the aggregate	$(W_3 - W_S)$ g	755	757	760	
6	Weight of oven dried aggregate	W_4 g	2010	2011	2012	
7	Specific Gravity	$W_4/(W_3-W_S)$	2.662	2.657	2.647	2.655
8	Apparent Specific gravity	$W_4/(W_4-W_S)$	2.716	2.710	2.701	2.709
9	Water Absorption	$((W_3-W_4)*100)/W_4$	0.75%	0.75%	0.75%	0.75%

Comments:

→ Maximum allowable Aggregate Water absorption value for Semi Dense Bituminous Concrete is 2.0%

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